

Clean copy of the amended claims 5 and 9 as follows:

ai 5. The apparatus of claim 4, wherein said first optical waveguide has a first input and said second optical waveguide has a second input, further comprising:

an optical divider coupled between the inputs of the first and second optical waveguides.

as 9. The apparatus of claim 8, wherein each of said waveguides has an output port, wherein the lens assembly comprises:

a magnifying lens optically coupled to the waveguide output ports;

a one-dimensional focusing lens coupled to the magnifying lens; and

a micro-lens coupled between the focusing lens and the photo detector array.

REMARKS

In the Office Action having a mailing date of March 15, 2002, the Examiner rejected claims 5, 6, 9, and 10 under 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctively claim the subject matter which applicant regards as the invention. The applicants have amended claims 5 and 9 in order to overcome the indefiniteness rejection.

The Examiner rejected claims 20 and 24 under 35 U.S.C. §102 as being anticipated by Geary. However, the applicants point out that in order to be anticipated, Geary must teach each and every element of the claims arranged as in the claims. While Geary describes producing an interference pattern based on the input signal, he makes no mention of detecting the location of a null of the interference pattern. Further, Geary makes no mention of producing an output signal based on the location of the null of the interference pattern. Accordingly, the applicants

respectfully submit that claims 20 and 24 are not anticipated by Geary and request that the Examiner reconsider and withdraw the rejection of claims 20 and 24 under 35 U.S.C. §102.

The Examiner rejected claims 1-6, 13, 14, 16, 17, and 21-23 under 35 U.S.C. §103 as being unpatentable over the prior art shown in Figure 1 in view of Leuchs (5,172,185). In contrast to the claimed invention, Leuchs describes a device for determining the wavelength of coherent light. The detection of the wavelength of the coherent light is accomplished by using a set of photo detectors to detect an interference pattern generated by the output of two point light sources.

The Figure 1 device is an apparatus for measuring an unknown input voltage differentially applied across electrodes 106 and 108. The Figure 1 device operates by detecting the intensity, I , of the optical output signal. The Figure 1 device does not suggest using photo detectors to detect an interference pattern.

The Examiner suggests that it would have been obvious to one of ordinary skill in the art to replace the coupler output of the Figure 1 device with the simplified waveguide output taught by Leuchs. The Examiner suggests that this would result in an obvious reduction in the number of parts. However, the applicants point out that the removal of the coupler of the Figure 1 device would result in two independent signal outputs. The two independent signal outputs would prevent the Figure 1 device from achieving its intended purpose. Removing the coupler from the Figure 1 device would not be obvious because the coupled output is essential to measuring the input voltage applied across electrodes 106 and 108. Accordingly, the Figure 1 device and Leuchs device are technologically incompatible. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 1-6, 13, 14, 16, 17, and 21-23 under 35 U.S.C. §103.

The Examiner also rejected claims 7-12, 15, 18, and 19 under 35 U.S.C. §103 as being unpatentable over the prior art shown in Figure 1 and Leuchs (5,172,185) as applied to claims 1-6, 13, 14, 16, 17, and 21-23, and further in view of Geary (4,747,688). By a June 10, 2002 telephone conference, the Examiner confirmed that the art applied to these claims includes Figure 1 of the application. The Examiner points out that Geary teaches the use of magnifying optics (18) that can be positioned between the waveguide ends and the detector array. However, as described previously, the Figure 1 device does not suggest the generation of two optical signals using waveguide ends. In addition, the Figure 1 device does not suggest the use of a detector array to detect an interference pattern generated by two waveguide ends. Therefore, the applicants submit that the use of magnifying optics is not suggested, and is irrelevant to the Figure 1 device. In view of the impropriety of combining the Figure 1 device with Leuchs device, as previously described, the applicants submit that claims 7-12, 15, 18, and 19 are not obvious in view of Geary. Applicants therefore request that the Examiner reconsider and withdraw the rejection of claims 7-12, 15, 18, and 19 under 35 U.S.C. §103.

The Commissioner is hereby authorized to charge any insufficient fees or credit any

overpayment associated with this application to Deposit Account No. 19-5127.

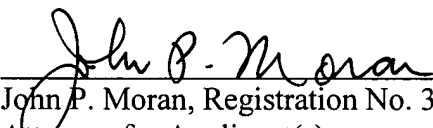
If the Examiner has any questions about this Amendment please call the undersigned.

Respectfully submitted,

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By:



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